

BookletChart™

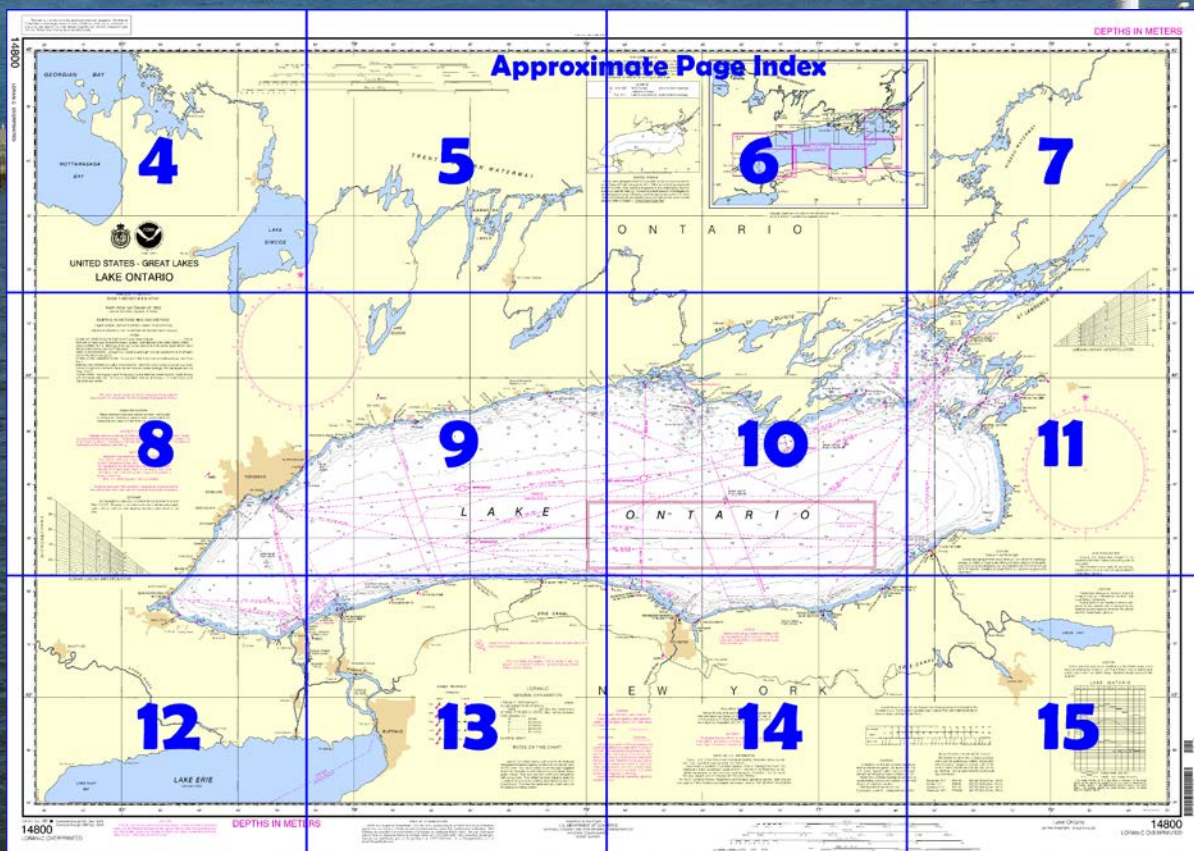
Lake Ontario NOAA Chart 14800



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/coastpilot_w.php?book=6



(Selected Excerpts from Coast Pilot)

Lake Ontario is the smallest and easternmost of the **Great Lakes**. The lake is comparatively deep; the greatest depth is 802 feet, and the average depth is 283 feet, much in excess of the greatest depth of Lake Erie. Lake Ontario is fed chiefly by the waters of **Lake Erie** by way of the **Niagara River**. The lake drains at its northeast end into the **St. Lawrence River**. **Welland Canal** bypasses the falls and rapids of the Niagara River and provides a

navigable connection between Lake Ontario and the upper lakes. The great depth of the lake limits fluctuations of water level caused by winds and renders them comparatively small. The lake is generally free of outlying shoals and obstructions. The only significant shoals

dangerous to navigation are those in the northeast end of the lake in the approach to the St. Lawrence River and those of Niagara Bar off the mouth of the Niagara River. The latter shoal is in the course of vessels plying between the Welland Canal and ports at the E end of the lake. **Vessel traffic control.**—Lake Ontario and the Welland Canal are divided into three traffic control sectors, with vessel movements in each sector controlled by a traffic controller. The objective of the system is to provide safe and efficient scheduling of vessel traffic, efficient search and rescue coverage, information regarding pilot requirements to the pilot dispatch centers, marine weather broadcasts, and information on vessel location to all interested parties.

The traffic control sectors are as follows: Sector 4, from Crossover Island in the St. Lawrence River to midlake in Lake Ontario; Sector 5, the W half of Lake Ontario; Sector 6, Welland Canal and its approaches. Massena traffic control center controls traffic in the Lake Ontario portion of Sector 4 through "Seaway Sodus," VHF-FM channel 13. St. Catharines traffic control center controls traffic in Sector 5 through "Seaway Newcastle," VHF-FM channel 11, and in Sector 6 through "Seaway Welland," VHF-FM channel 14.

Calling-in points.—Calling-in points on Lake Ontario follow:

Sodus Point.—Upbound and downbound vessels shall contact "Seaway Sodus" on VHF-FM channel 13 when approximately abeam of Point Petre, ON. After initial contact, vessels shall guard VHF-FM channel 16.

Mid-Lake Ontario.—Upbound vessels shall contact "Seaway Newcastle" on VHF-FM channel 11 and downbound vessels shall contact "Seaway Sodus" on VHF-FM channel 13 upon arrival at a point in mid-lake in about 43°41'N., 77°47'W. After initial contact, vessels shall guard VHF-FM channel 16.

Newcastle.—Upbound and downbound vessels shall contact "Seaway Newcastle" upon arrival at a point about 16 miles south of Newcastle, ON, and when about 8 miles north of Thirtymile Point, NY on VHF-FM channel 11. After initial contact, vessels shall guard VHF-FM channel 16.

Local magnetic disturbances.—Differences from normal variation of about 006°W to 007°E have been observed at numerous locations throughout Lake Ontario. Differences of up to 37° have been observed in the approach to Kingston, ON, on the north side of the head of the St. Lawrence River.

Pilotage.—The waters of Lake Ontario are Great Lakes undesignated waters; registered vessels of the United States and foreign vessels are required to have in their service a United States or Canadian registered pilot or other officer qualified for Great lakes undesignated waters. The Welland Canal and its approaches are Great Lakes designated waters; registered vessels of the United States and foreign vessels are required to have in their service a United States or Canadian registered pilot. Registered pilots for Lake Ontario and Welland Canal are supplied by the Great Lakes Pilotage Authority, Ltd., St. Catharines. (See Appendix A for address.) Pilot exchange points are off Cape Vincent, NY, 1 to 2 miles north of Port Weller, and at the south end of Welland Canal 1 to 2 miles south of Port Colborne. (See Pilotage, chapter 3, and **46 CFR 401**, chapter 2.)

Principal ports.—The principal ports on Lake Ontario are at Oswego and Rochester, NY, and at Hamilton and Toronto, ON. At Cape Vincent, NY, a harbor protected by a breakwater provides refuge for vessels who find that storm conditions render it unsafe to venture into the open lake from the head of St. Lawrence River. The largest drydock on Lake Ontario is at Port Weller in the Welland Canal.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Cleveland

Commander

9th CG District

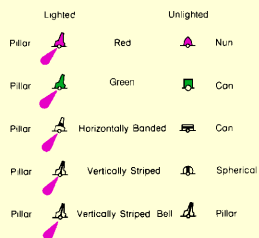
Cleveland, OH

(216) 902-6117

Table of Selected Chart Notes

SYMBOL REFERENCE

Floating Aids



Mercator Projection
Scale 1:400,000 at Lat 43°40'
North American Datum of 1983
(World Geodetic System of 1984)

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.
See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

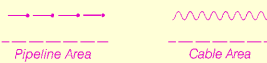
CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
○ (Accurate location) ◦ (Approximate location)

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

NOTE B

Mariners should use caution as military craft may be operating within the area. For further information consult the U.S. Coast Guard Local Notice to Mariners.

Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOTE C

This line marks the western limit of sector 4 and the eastern limit of sector 5 of the St. Lawrence Seaway Vessel Traffic Control System.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Rochester, N.Y.	KHA-53	162.400 MHz (Chan. WX-2)
Buffalo, N.Y.	KEB-98	162.550 MHz (chan. WX-1)
Syracuse, N.Y.	WXL-31	162.550 MHz (Chan. WX-1)
Watertown, N.Y.	WXN-68	162.475 MHz (Chan. WX-3)

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

SOURCE DIAGRAM

Most of the hydrography identified by the letter "I" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

CAUTION

POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

Potable Water Intake cribs are charted only where positions are seaward of the 10 meter curve. For location of potable water intakes (PW) and intake pipelines in inshore areas, use larger scale charts.



Vessel Traffic Services calling-in point with numbers; arrow indicates direction of vessel movement.

AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....74.2 m.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

This chart was developed within the framework of international specifications in cooperation with the Canadian Hydrographic Service.

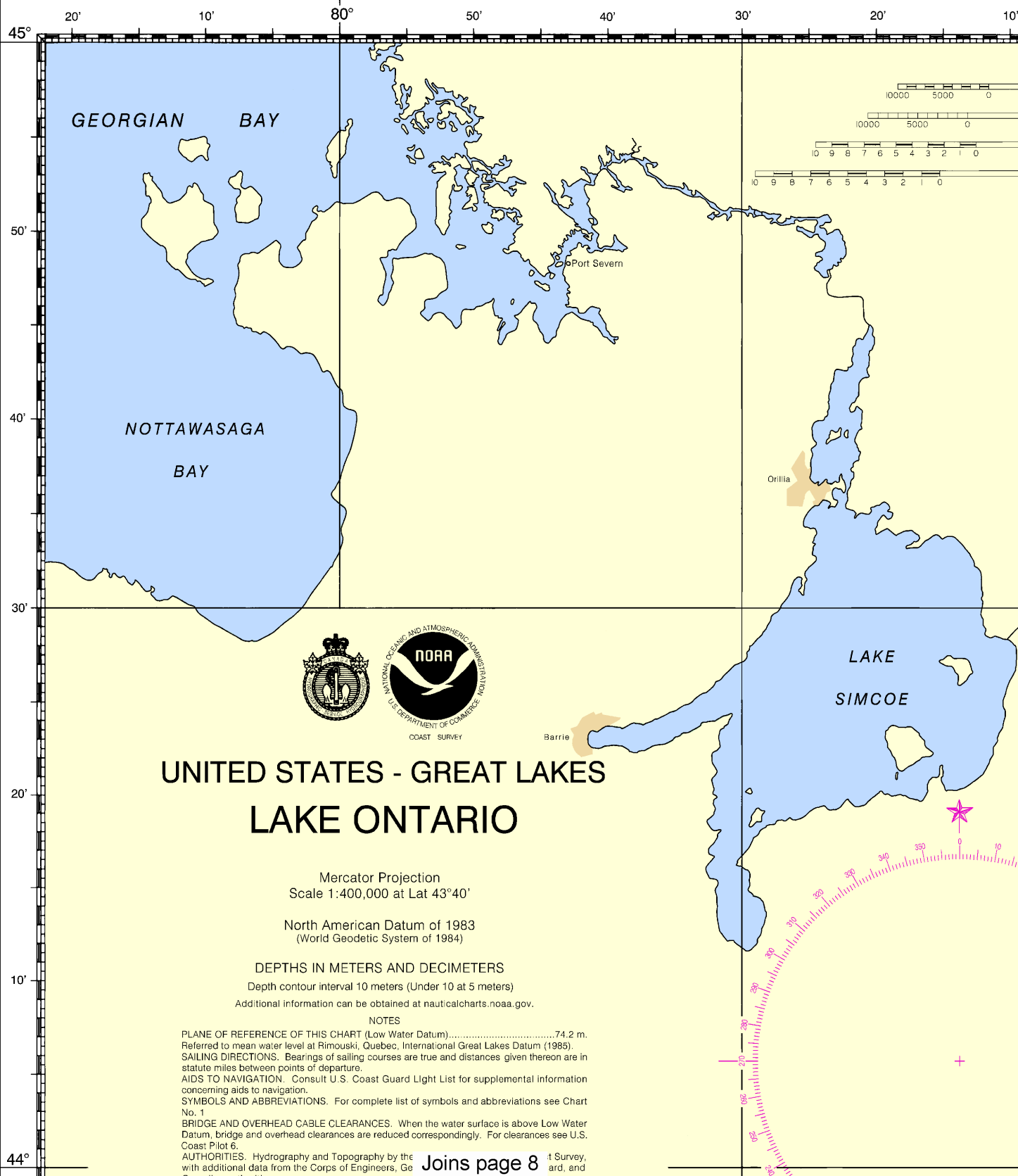
MAGNETIC VARIATION

Magnetic variation curves are for 2005 derived from 2005 World Magnetic Model and accompanying secular change. If annual change is in the same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

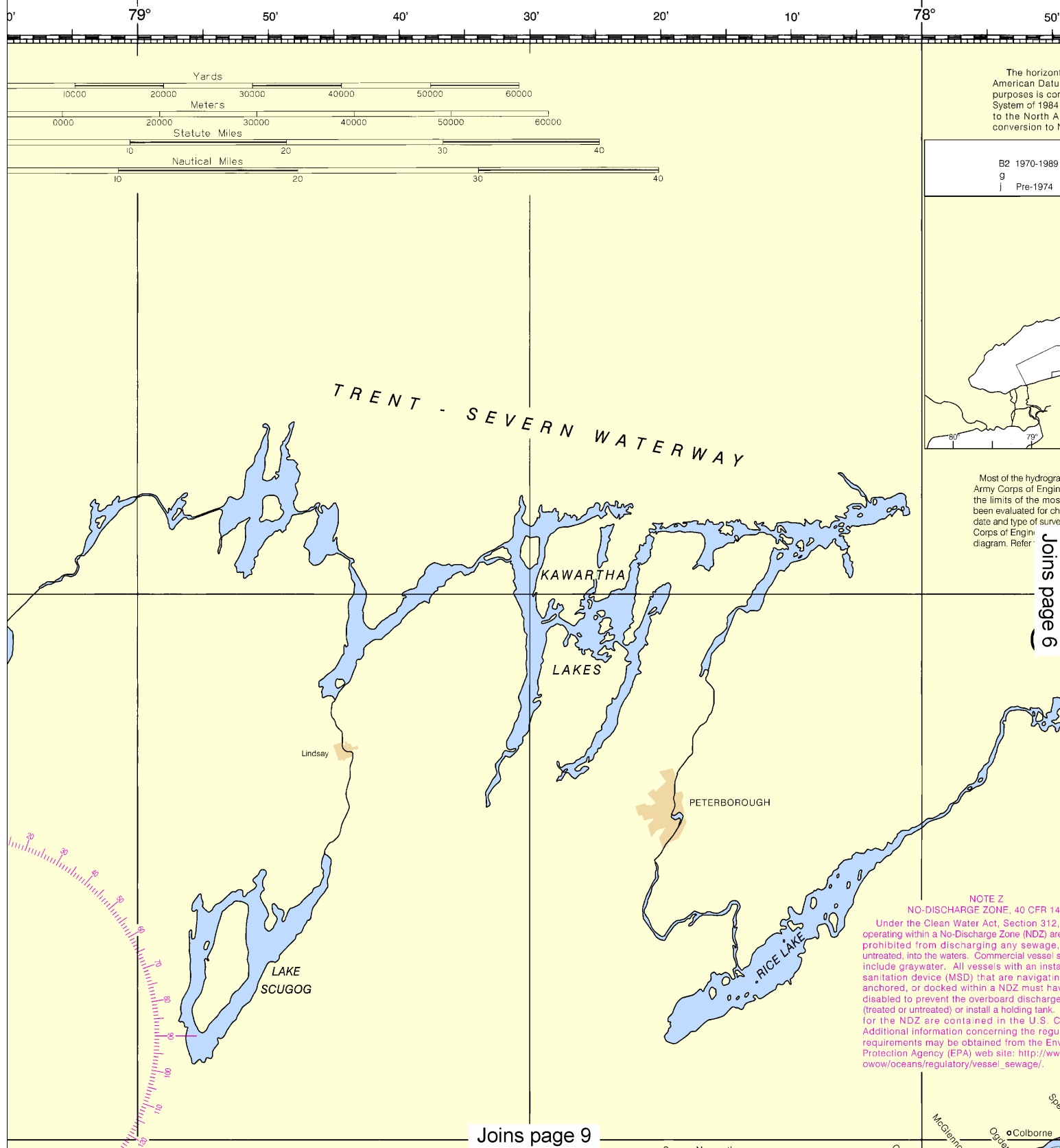
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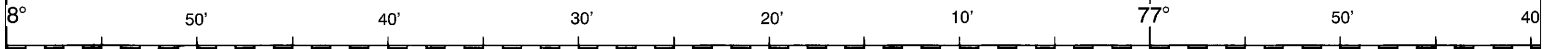
4

Note: Chart grid lines are aligned with true north.



Joins page 9

This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:533333. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

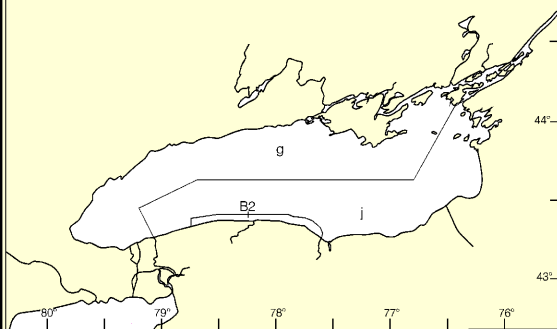


HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System of 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 do not require conversion to NAD 83 for plotting on this chart.

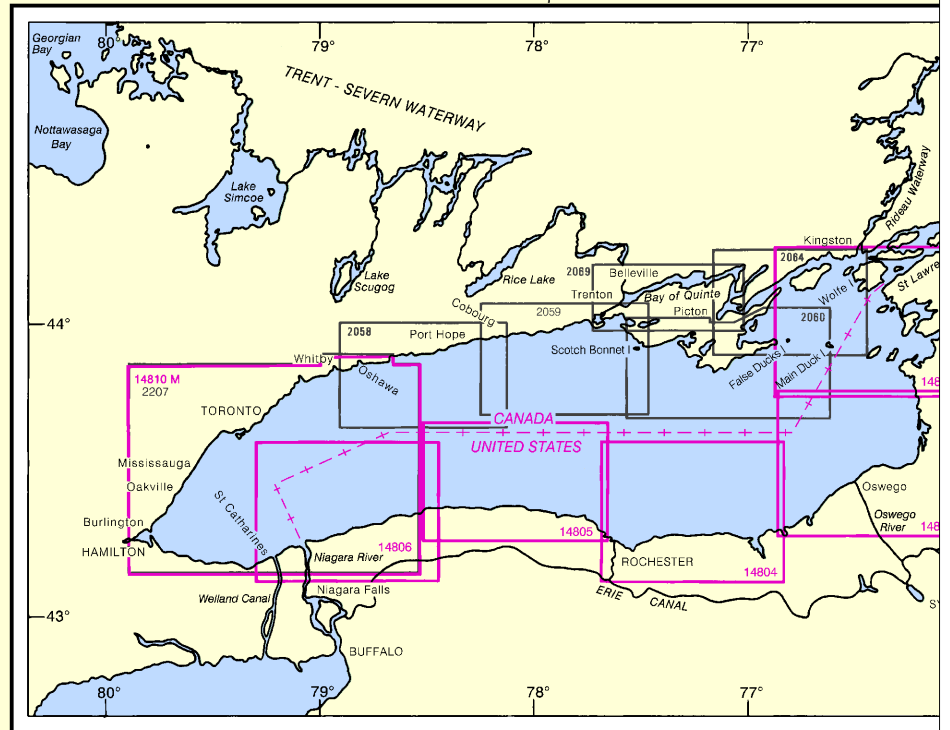
SOURCE

B2	1970-1989	NOS Surveys	partial bottom coverage
g		Canadian Surveys	
j	Pre-1974	Lake Survey Surveys	partial bottom coverage



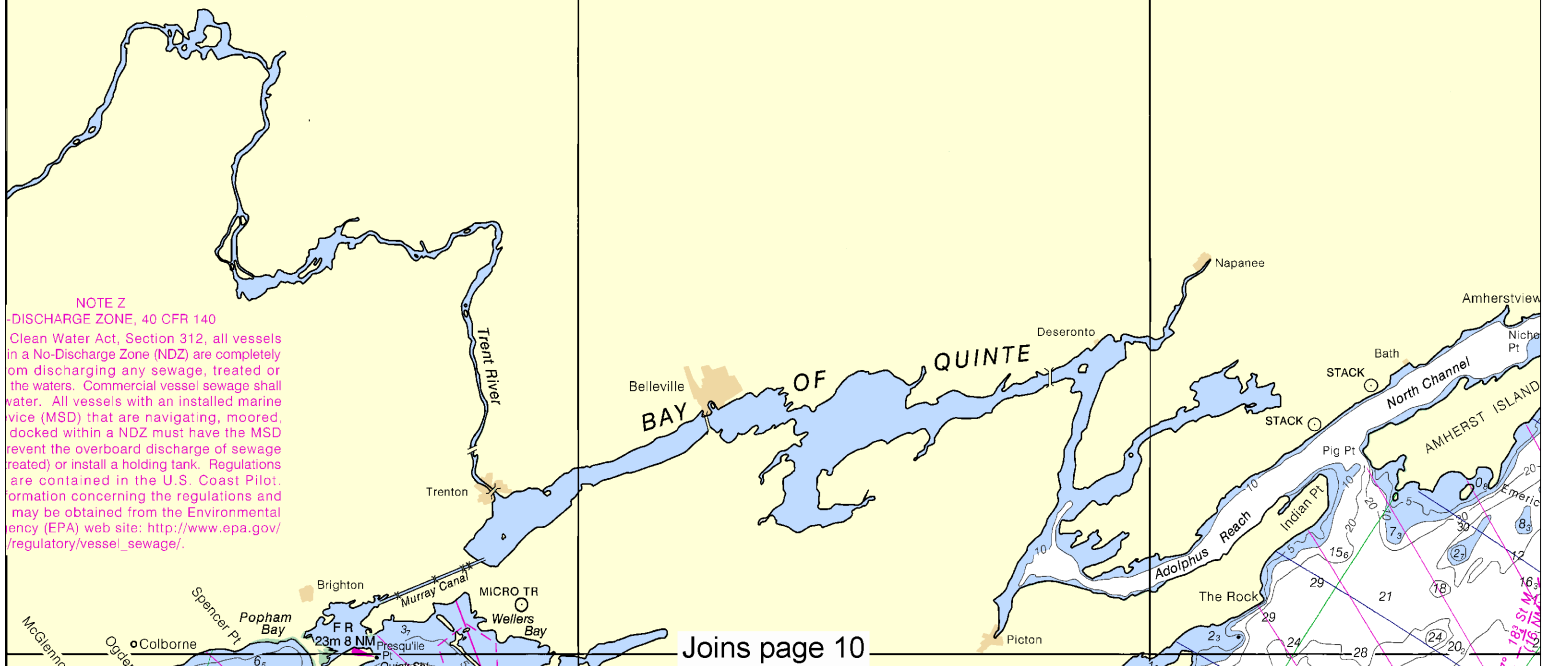
SOURCE DIAGRAM

Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Other outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.



Canadian charts are outlined in screened black and may be obtained from the Canadian Hydrographic Service.

O N T A R I O



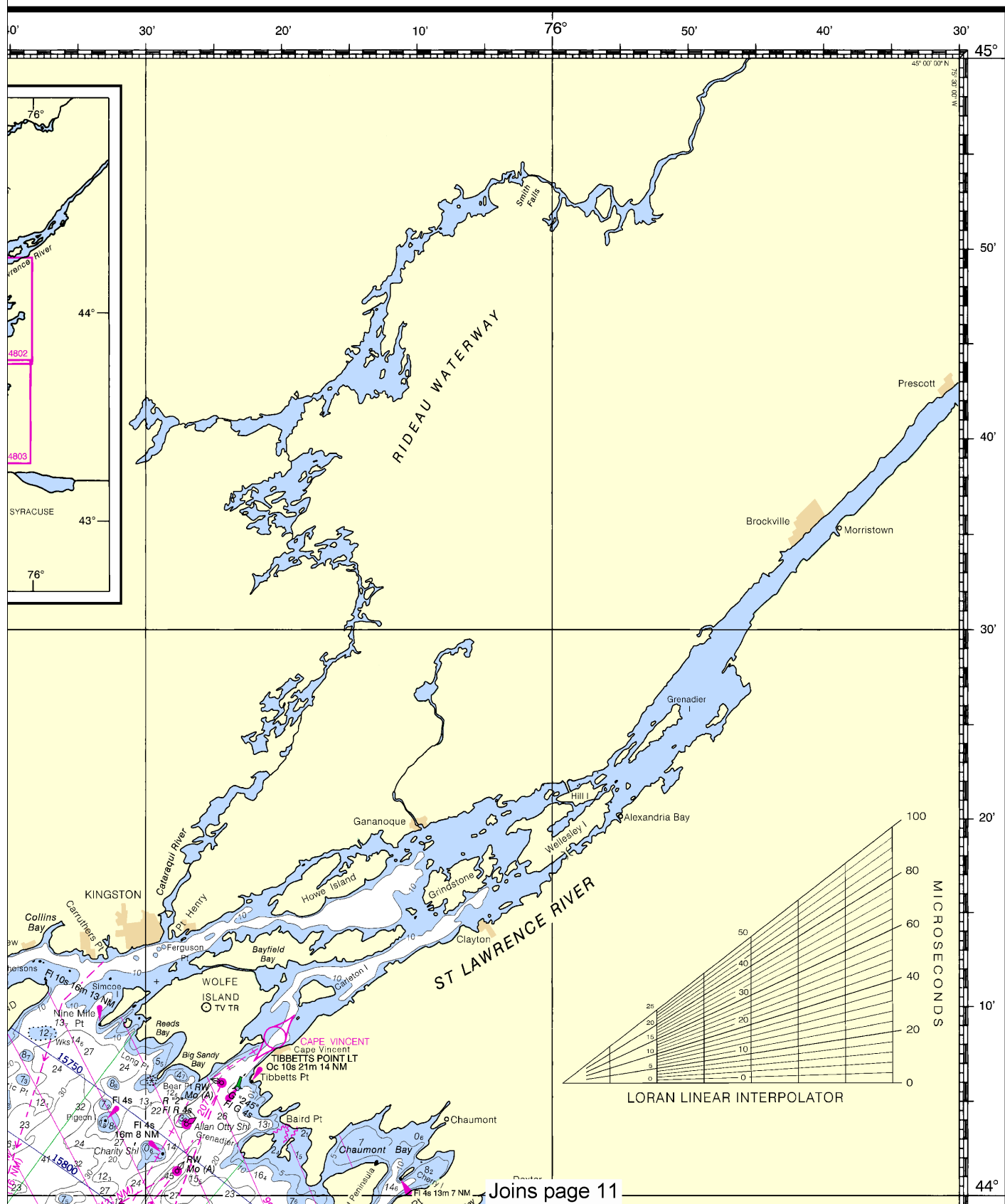
NOTE Z

DISCHARGE ZONE, 40 CFR 140

Clean Water Act, Section 312, all vessels in a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall be treated. All vessels with an installed marine sewage treatment device (MSD) that are navigating, moored, docked within a NDZ must have the MSD revent the overboard discharge of sewage (treated) or install a holding tank. Regulations are contained in the U.S. Coast Pilot. Information concerning the regulations and may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/regulatory/vessel_sewage/.

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DEPTHS IN METERS



Joins page 11

This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4712 11/20/2012,
 NGA Weekly Notice to Mariners: 4812 12/1/2012,
 Canadian Coast Guard Notice to Mariners: 1012 10/26/2012.

UNITED STATES - GREAT LAKES LAKE ONTARIO

Mercator Projection
Scale 1:400,000 at Lat 43°40'

North American Datum of 1983
(World Geodetic System of 1984)

DEPTHS IN METERS AND DECIMETERS

Depth contour interval 10 meters (Under 10 at 5 meters)

Additional information can be obtained at nauticalcharts.noaa.gov.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....74.2 m.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).
SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.
AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.
SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.
BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.
AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and Canadian authorities.

This chart was developed within the framework of International specifications in cooperation with the Canadian Hydrographic Service.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

MAGNETIC VARIATION

Magnetic variation curves are for 2005 derived from 2005 World Magnetic Model and accompanying secular change. If annual change is in the same direction as variation it is additive and the variation is increasing. If annual change is opposite in direction to variation it is subtractive and the variation is decreasing.

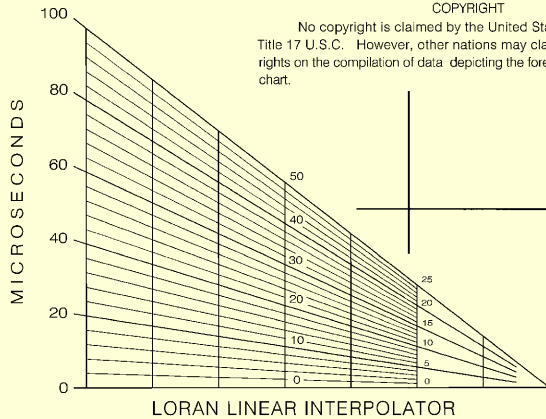
NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.
Refer to charted regulation section numbers.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

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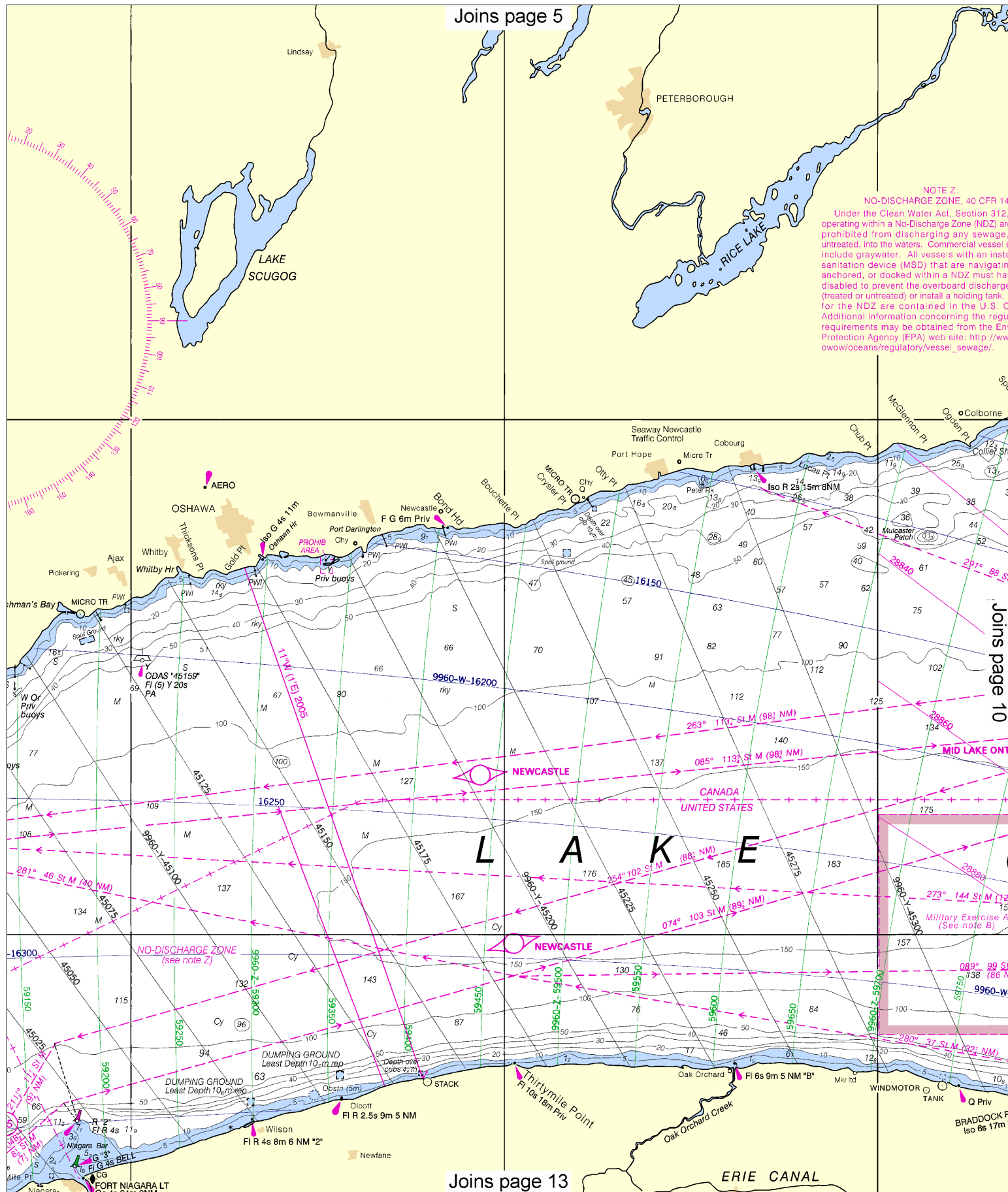
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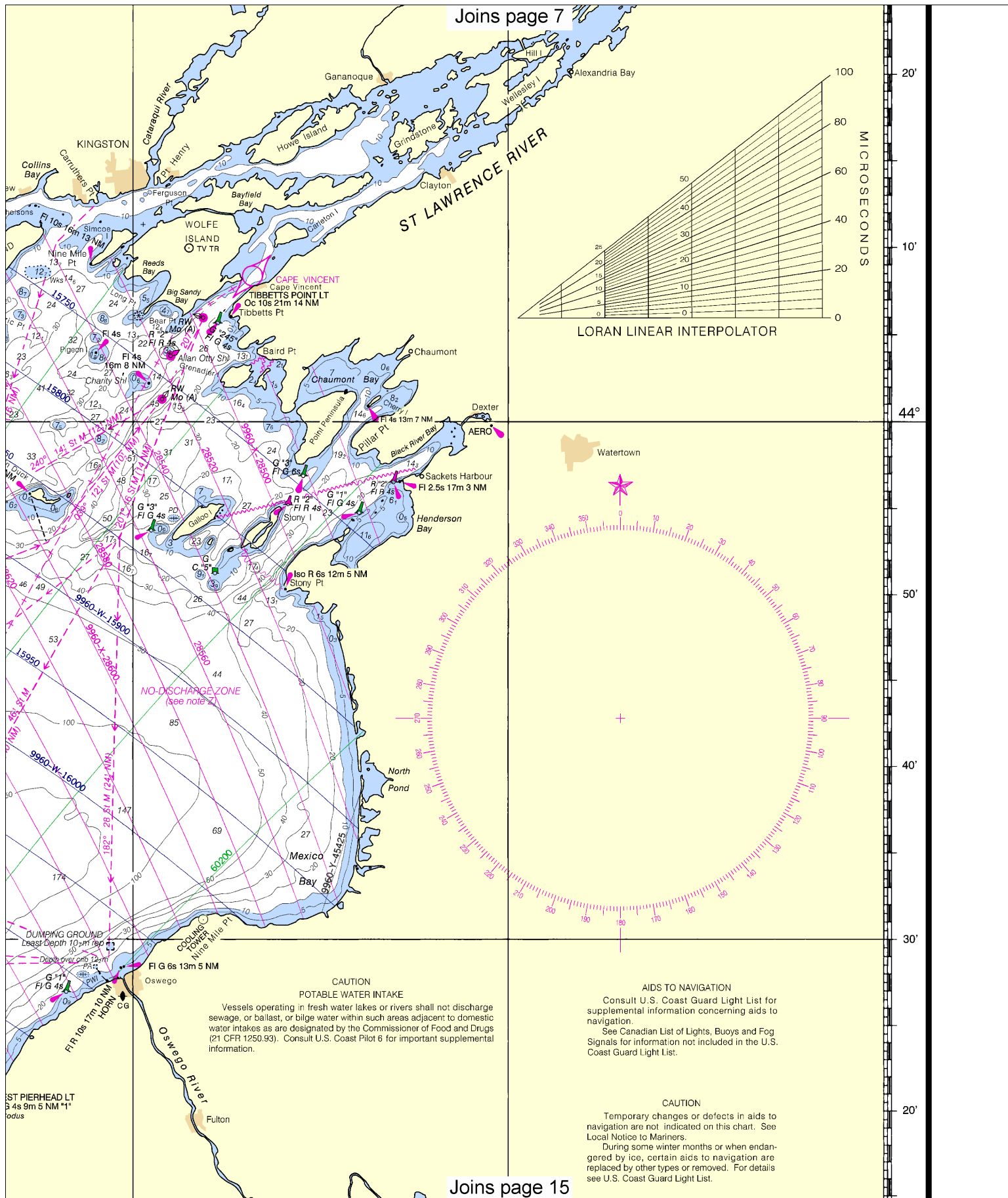


LORAN LINEAR INTERPOLATOR

NOTE Z
NO-DISCHARGE ZONE, 40 CFR 14

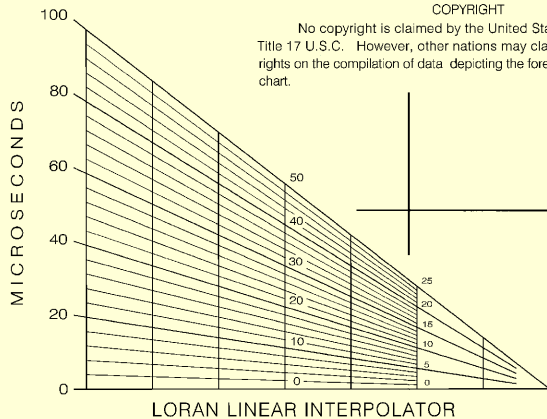
Under the Clean Water Act, Section 312, operating within a No-Discharge Zone (NDZ) is prohibited from discharging any sewage or untreated, into the waters. Commercial vessels include graywater. All vessels with an instantaneous sanitation device (MSD) that are navigating, anchored, or docked within a NDZ must have disabled to prevent the overboard discharge (treated or untreated) or install a holding tank. For the NDZ are contained in the U.S. Coast Guard's (USCG) Notice to Mariners (NTM). Additional information concerning the regulatory requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.owow/oceans/regulatory/vessel_sewage/.



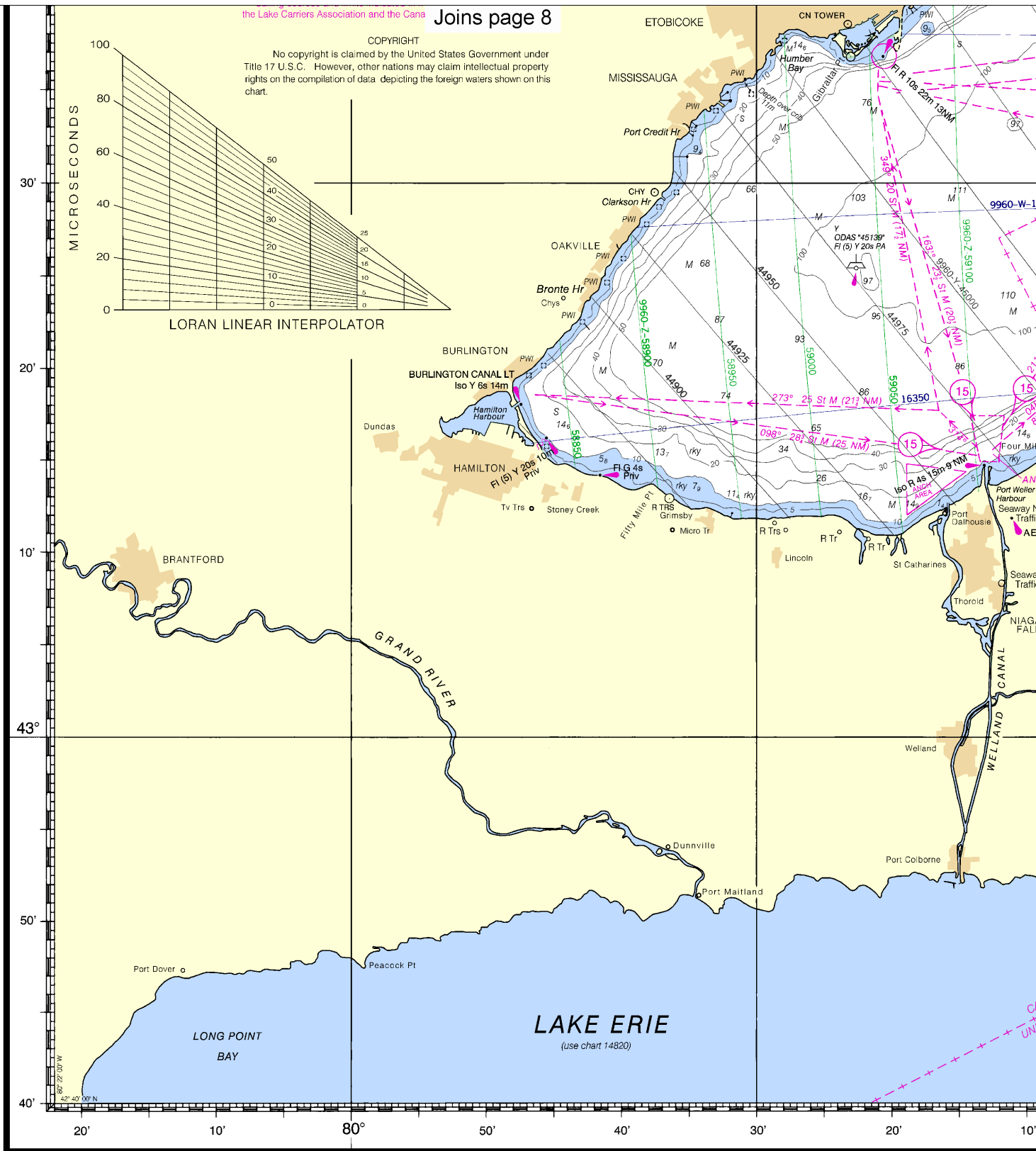


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LORAN LINEAR INTERPOLATOR



10th Ed., Sep./ 05 ■ Corrected through NM Sep. 24/05
Corrected through LNM Sep. 20/05

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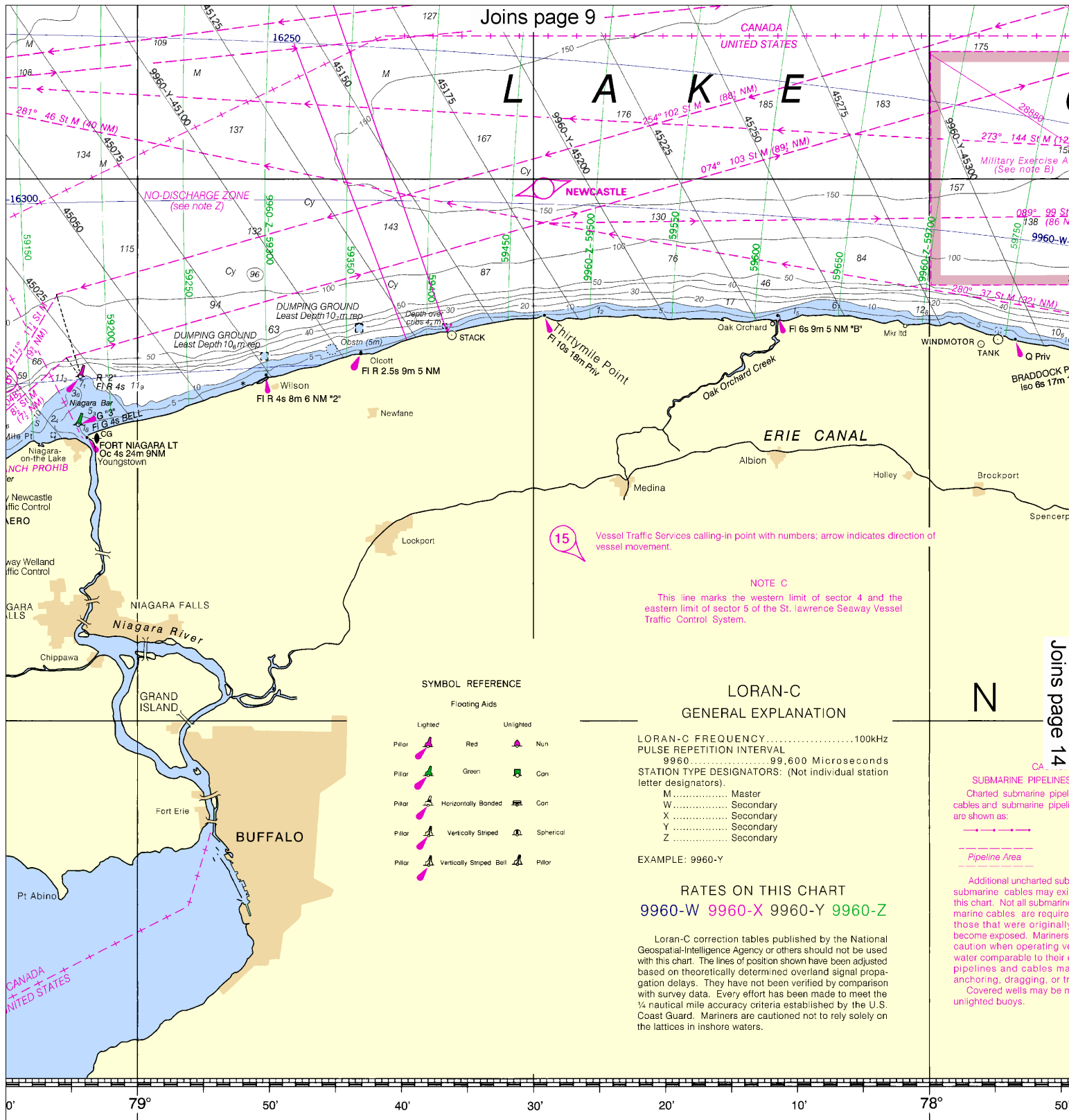
CAUTION

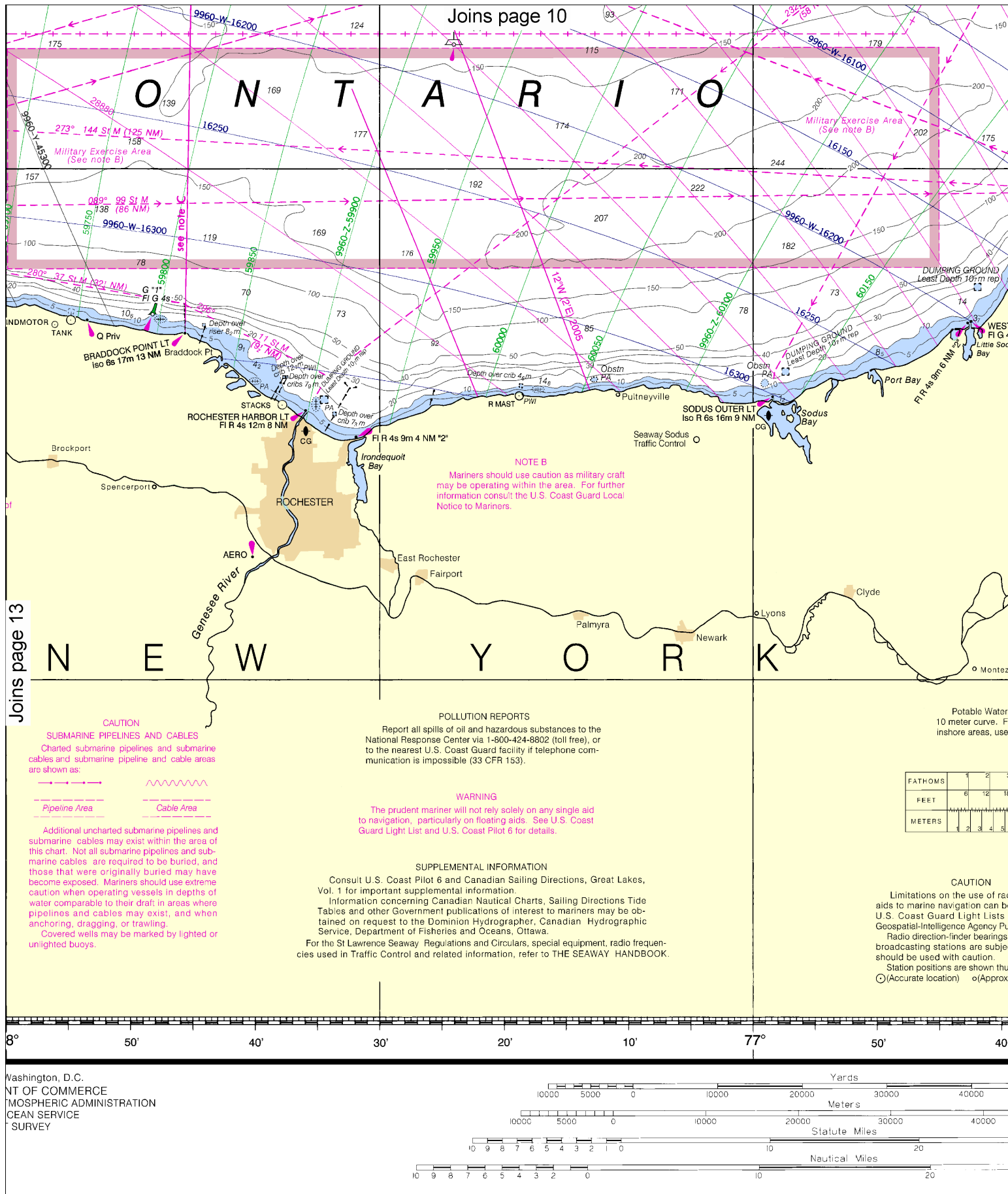
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.

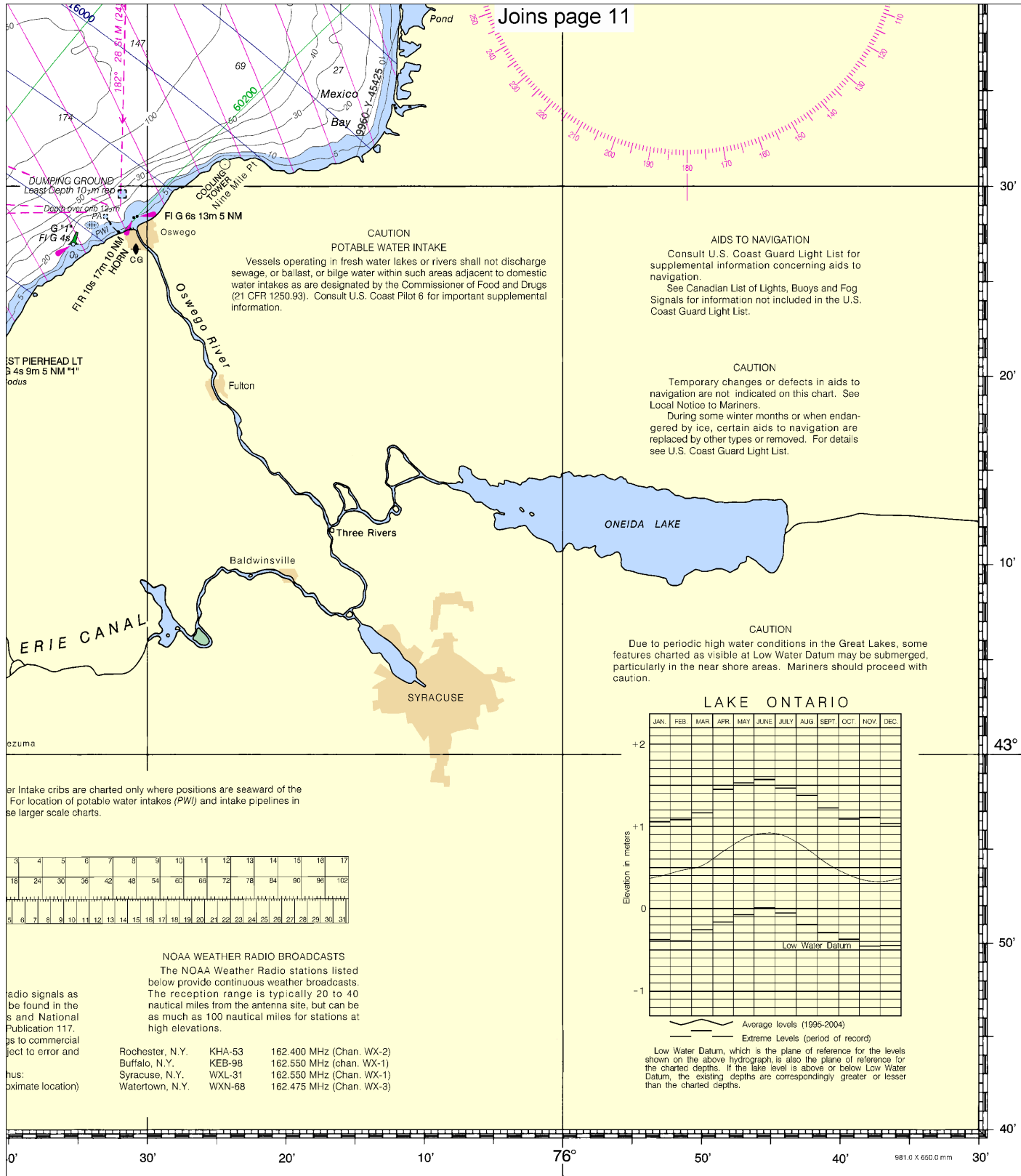
DEPTHS IN METERS

12

Note: Chart grid lines are aligned with true north.







ED. NO. 10

NSN 7642014010562
GPO REFERENCE NO. 14XCO1480

Lake Ontario
DEPTHS IN METERS - SCALE 1:400,000

14800
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VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Online chart viewer	—	http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey



The Nation's Chartmaker